

DETAILED ACTION

This substitute office action, i.e., remailing the last office action of 5/6/05 and restarting the period for response, is made in view of the Petition filed 1/9/06 and granted on 3/16/06 regarding withdrawing the holding of abandonment due to non-receipt of the last office action.

Information Disclosure Statement

1. Receipt is acknowledged of the Information Disclosure Statement (IDS) received March 29, 2002.

Drawings

2. Figures 6-8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The disclosure is objected to because of the following informalities: Pages 9-14 are objected to because they are grammatically confusing.

Appropriate correction is required.

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 6 and 11 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's Admitted Prior Art (AAPA). As per claim 6, AAPA shows in figure 8 an arm positioning apparatus for manufacturing a rotary type actuator that includes arms 102 in a plate shape for holding head suspension elements at one end, and a holder 101 in a cylindrical shape for holding the arms 102 that are oscillated by supporting the other end of each of the arms 102.

AAPA also shows in figure 8 a single coil part 104 around which a wire is wound in an aligned manner, and secures the arms 102, the holder 101 and the coil part 104 at a predetermined position by resin molding. The arm positioning apparatus includes a positioning

pin 105 for positioning the arms 102 by insertion into suspension element attachment holes 102b of the arms 102 which are placed at predetermined positions in the holder 101.

Figure 8 additionally shows a pin positioning arrangement having a pin holder for holding the positioning pin 105, which is movable in the arm positioning direction for positioning the arms 102 at predetermined positions by restricting the movement of the positioning pin 105 at the time of arm positioning and for releasing the restriction to the positioning pin 105 after the completion of arm positioning.

As per claim 11, AAPA discloses that the apparatus is built into a metal mold for resin molding.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted Prior Art (AAPA) in view of Edwards et al (US 5,270,887). As per claim 1, AAPA shows in figures 6-8 a rotary type actuator including arms 102 in a plate shape for holding head suspension elements at one end. Figures 6-8 also show a holder 101 in a cylindrical shape for holding the arms 102 which are oscillated. Grooves 101a have a gap width greater than the plate thickness of the arms 102 and are formed in the external surface of the holder 101. The other end of each of the arms 102 is inserted in the grooves 101a and a single coil part 104 around which a wire is wound in an aligned manner is additionally shown in figures 6-8. Further shown in figures 6-8 is a resin part 106 for integrally combining the arms 102. The holder 101 and the coil part 104 are located at a predetermined position.

As per claim 2, AAPA shows in figures 6-8 the plurality of arms 102 being provided. The grooves 101a of the holder 101 are formed in the same number of the arms 102, and the plurality of arms 102 are led out substantially in parallel at predetermined intervals. As per claim 10, AAPA shows a surface of the positioning pin 105 that is inserted into the suspension element attachment holes 102b of the arms 102.

AAPA, however, is silent as to a conductive member in a band shape for maintaining the plurality of arms at the same potential through grounding. AAPA is also silent as to positioning pins coated with a sinter prevention material

Edwards et al shows in figure 4a and figure 4c and describes in column 11, lines 47-50 a conductive member, a ground wire, in a "band shape" for maintaining the plurality arms 78 at the same potential through grounding.

Official notice is taken of the fact that sinter prevention materials, such as diamond-like-carbon (DLC) are notoriously old and well known in the disk drive art.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the rotary type actuator of AAPA with a conductive member in a band shape for maintaining the plurality of arms at the same potential through grounding as taught by Edwards et al. The rationale is as follows: one of ordinary skill in the art at the time the invention was made would have been motivated to provide a conductive member in a band shape for maintaining the plurality of arms at the same potential through grounding to “allow any electrostatic charge to be drained away”. See column 11, lines 47-50.

It also would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the positioning pin of AAPA with a sinter prevention material, such as DLC, as taught in the art. The rationale is as follows: one of ordinary skill in the art at the time the invention was made would have been motivated to provide a positioning pin with a DLC coating to prevent the positioning pin from forming a powder like substance when removed from an attachment hole.

Allowable Subject Matter

11. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Davis whose telephone number is 571-272-7572. The examiner can normally be reached on Monday thru Friday between 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David D. Davis/
Primary Examiner, Art Unit 2627

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